

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-17(cancelled)

18. (new): An electronic control cell for at least one organic light-emitting diode (OLED) of a pixel or segment of an active matrix display, the cell including at least :

- one control circuit (61, 62) with a control input and operating as an electronic switch relative to a control signal arriving at a control line (5, 5') on the control input and enabling to turn on the organic light emitting diode(s) (OLED) or not, relative to said control signal,

- one capacitive storage circuit of the control signal with a capacitor (C) connected to the control line,

- one selection circuit (41, 42) operating as an electronic switch relative to a selection signal (V_{sel}) arriving at a selection line (3, 3') and enabling electrical connection or insulation of the capacitive storage circuit with/from a control voltage (V_{com}) (2) relative to said selection signal, characterised in that the memorization duration of a perceptible turn on state is smaller than or equal to half a duration of a frame by discharging the capacitor through a resistor (R_f) parallel to the capacitor (C).

19. (new): A cell according to claim 18, characterised in that the capacitor (C) is substantially an added-on capacitor.

20. (new): A cell according to claim 18, characterised in that the capacitor (C) is substantially the capacitive portion of the intrinsic input impedance of the control circuit.

21. (new): A cell according to claim 18, characterised in that the resistor (R_f) is substantially an added-on resistor.

22. (new): A cell according to claim 18, characterised in that the resistor (R_f) is substantially the resistive portion of the intrinsic input impedance of the control circuit.

23. (new): A cell according to claim 18, characterised in that the resistor (Rf) is substantially a leakage resistor of the capacitor (C).

24. (new): A cell according to claim 18, characterised in that it includes a means reducing the maximum rise and/or fall rate of the voltage at the terminals of the capacitor (C) when the latter is connected to the control voltage (V_{com}).

25. (new): A cell according to claim 18, characterised in that the control circuit is a field effect control transistor (M1) (61, 62).

26. (new): A cell according to claim 18, characterised in that the selection circuit is a field effect control transistor (M2) (41, 42).

27. (new): A cell according to claim 25, characterised in that the control circuit is a P-type field effect control transistor (M1) (61, 62) connected on the one hand directly to the positive pole (V_{dd}) of the power supply and on the other hand through the organic light emitting diode(s) (OLED) to the ground of the power supply, in that the selection circuit is a P-type field effect control transistor (M2) (41, 42) and in that the capacitor (C) and the resistor (Rf) in parallel return to the positive pole (V_{dd}).

28. (new): A cell according to claim 25, characterised in that the control circuit is an N-type field effect control transistor (M1) (61, 62) connected on the one hand directly to the ground of the power supply and on the other hand through the organic light emitting diode(s) (OLED) to the positive pole (V_{dd}) of the power supply, in that the selection circuit is an N-type field effect control transistor (M2) (41, 42) and in that the capacitor (C) and the resistor (Rf) in parallel return to the ground.

29. (new): A cell according to claim 25, characterised in that the transistors are thin-film transistors, so-called TFT.

30. (new): An operating method of an electronic control cell for at least one organic light-emitting diode (OLED) of a pixel or segment of an active matrix display, the cell having at least :

- one control circuit (61, 62) with a control input and operating as an electronic switch relative to a control signal arriving at a control line (5, 5') on the control input and enabling to turn on the organic light emitting diode(s) (OLED) or not relative to said control signal,

- one capacitive storage circuit of the control signal with a capacitor (C) connected to the control line,

- one selection circuit (41, 42) operating as an electronic switch relative to a selection signal (V_{sel}) arriving at a selection line (3, 3') and enabling electrical connection or insulation of the capacitive storage circuit with/from a control voltage (V_{com}) relative to said selection signal,

characterised in the implementation of a cell which is according to any of the previous claims and wherein the discharge of the capacitor is caused through a resistor (R_f) arranged parallel to the capacitor (C) in order to obtain a memorization duration of a perceptible turn on state smaller than or equal to half a duration of a frame.

31. (new): An operating method according to claim 30, characterised in that the control signal is modulated in duration and/or in voltage level.

32. (new): An operating method according to claim 30, characterised in that for turning the organic light emitting diode(s) (OLED) on, a selection pulse (V_{sel}) is applied to the selection line of such a duration that at the end of the selection pulse the voltage at the terminals of the capacitor is a fraction of (V_{com}).

33. (new): An operating method according to claim 30, characterised in that the control voltage (V_{com}) is adjustable in amplitude, the conduction duration of the selection circuit (41, 42) by the selection signal being constant, in order to adjust the duration of the turned-on state so that it is smaller than the duration of the frame.

34. (new): Display unit with organic light-emitting diodes (OLED) of pixels and/or segments implementing a set of electronic control cells of said diodes organised into a matrix, each pixel or segment being controllable individually by line x column multiplexing of the matrix, characterised in

that the cells are according to claim 18.